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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,353	03/06/2002	Geun Soo Lim	K-0394	7255
34610	7590	10/25/2005	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			NGUYEN, JIMMY H	
			ART UNIT	PAPER NUMBER
			2673	

DATE MAILED: 10/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/091,353		LIM, GEUN SOO	
	<b>Examiner</b>		<b>Art Unit</b>	
	Jimmy H. Nguyen		2673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
 THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,5-7,21,22,24-26 and 28-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5-7,21,22,24-26 and 28-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

~~1. This Office Action is made in response to applicant's amendment filed on 09/07/2005.~~

Claims 1, 5-7, 21, 22, 24-26 and 28-33 are currently pending in the application. An action follows below:

#### *Drawings*

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the feature, “widths of the plurality of data pulses varying based on logic values of input data signals”, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

*Claim Objections*

~~3. Claims 21 and 32 are objected to under 37 CFR 1.75(a) because although these claims~~  
meet the requirement 112/2d, i.e., the metes and bounds are determinable, however, "data" in line 1 of these claims should be changed to -- said input data having said first logic value--, so as to make the claimed invention consistent with the disclosure (see fig. 6).

4. Claims 22 and 33 are objected to under 37 CFR 1.75(a) because although these claims meet the requirement 112/2d, i.e., the metes and bounds are determinable, however, "data is not supplied" in lines 1-2 of these claims should be changed to -- said input data having said second logic value is supplied--, so as to make the claimed invention consistent with the disclosure (see fig. 6).

It is in the best interest of the patent community that applicant, in his/her normal review and/or rewriting of the claims, to take into consideration these editorial situations and make changes as necessary.

*Claim Rejections - 35 USC § 112*

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1, 5-7, 21, 22, 24-26 and 28-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding to claims above, the disclosure, when filed, does not fairly contain information ~~regarding to the claimed features, “widths of the plurality of data pulses varying based on logic~~  
~~values of input data signals”, “the first data pulse width is greater than the second data pulse~~  
~~width”, and “scanning pulses having a pulse width identical to the first data pulse width”,~~ as presently recited in independent claim 1 (see lines 7-17) and claim 24 (see lines 5-14). The original disclosure, when filed, specifically fig. 6 and the description, page 9, line 11 through page 10, line 15, expressly teaches that widths (Ta, Tb, Tc, and Td) of the plurality of data pulses varying based on logic values (1 or 0) of a data signal (i.e., a **single** data signal) applied to an address electrode line X, rather than based on input data **signals**, as presently claimed. Further, as best understood, the claimed first and second logic values respectively correspond to a logic value “1” and a logic value “0”. If this is a case, the claimed first data pulse width may be considered as the width “Ta” as shown in fig. 6 and the claimed second data pulse width may be considered as the width “Td” as shown in fig. 6. Accordingly, figure 6 shows the second data pulse width (Td) greater than the first data pulse width (Ta). Furthermore, when the claimed first data pulse width is considered as the width “Tc”, figure 6 expressly shows that the pulse width of the scanning pulse applied to the scanning electrode Y2 is not identical with the first data pulse width (Tc). Accordingly, the original disclosure does not fairly convey to one of ordinary skill in the art that inventor(s) had in their possession the above underlined features presently recited in independent claims 1 and 24.

7. It is in the best interest of the patent community that applicant reviews the original disclosure, specifically the specification, page 9, line 9 through page 10, line 19, and the drawings and rewrites the claims to comply with the original written description requirement.

*Claim Rejections - 35 USC § 102*

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~~8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the~~

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basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1, 5, 6, 21, 22, 24-26, 28, 29 and 31-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Yoo et al. (USPN: 6,407,510 B1), hereinafter Yoo.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C.

102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

As to claims 1, 5, 6, 24-26, 28, 29 and 31, the claimed invention reads on the Yoo reference as follows: Yoo discloses a method, for driving a plasma display panel (PDP) (best seen in fig. 2, col. 1, lines 46-50) having a plurality of discharge cells (1) formed by a plurality of scanning/sustain electrode lines (Y), a common sustain electrode line (Z) and a plurality of address electrode lines (X), comprising the steps of discharging and initializing the plurality of discharge cells (1) during a reset interval (see col. 1, lines 66-67); progressively applying scanning pulses (Vs) having a width of (Tas + Ts) to the plurality of scanning/sustain electrode lines (Y) such that the scanning pulses are overlapped to each other for a preset time

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corresponding to a width  $T_{as}$  (see fig. 7); and if the input data signals present with the logic

~~value of "1", applying **first data pulses** (each first data pulse having a width of  $(T_d + 2T_{ad})$ )~~

which is the same width  $(T_s + T_{as})$  of the scanning pulse (Y) (fig. 7 shows first data pulse

applied to the discharge cells  $(X_n, Y_m)$ ,  $(X_n, Y_{m+1})$ , and  $(X_{n+1}, Y_{m+2})$ ; fig. 8 shows first data pulse

applied to the discharge cells  $(X, Y_m)$ ,  $(X, Y_{m+1})$ , and  $(X, Y_{m+4})$ ; further see col. 4, line 51

through col. 5, line 52); and if the input data signals present with the logic value of "0", applying

**second data pulses** (each second data pulse having a width of  $T_d$ ; fig. 7 shows second data pulse

applied to the discharge cells  $(X_n, Y_{m+2})$  and  $(X_n, Y_{m+3})$ ; fig. 8 shows second data pulse applied

to the discharge cells  $(X, Y_{m+2})$  and  $(X, Y_{m+3})$ ; further see col. 4, line 51 through col. 5, line 54).

Furthermore, in the case of the PDP having  $m$  scanning/sustain electrode lines ( $Y_1$ - $Y_m$ ) (e.g.,

see fig. 2), the Yoo reference implicitly discloses the  $m$  scanning/sustain electrode lines ( $Y_1$ -

$Y_m$ ) divided and driving into two blocks (or parts), an upper block having  $m/2$  scanning/sustain

electrode lines ( $Y_1$ - $Y_{m/2}$ ) and a lower block having  $m/2$  scanning/sustain electrode lines ( $(Y_{m/2}$

$+ 1) - Y_m$ ). Also, the Yoo reference teaches that progressively applying scanning pulses ( $V_s$ ) to

the plurality of scanning/sustain electrode lines (e.g.,  $Y_1$ - $Y_m$ ), starting from the first

scanning/sustain electrode line ( $Y_1$ ) to the last scanning/sustain electrode line ( $Y_m$ ) (see figs. 7

and 8). In other words, the Yoo reference implicitly teaches a step of progressively applying

scanning pulses ( $V_s$ ) to the plurality of scanning/sustain electrode lines ( $Y_1$ - $Y_{m/2}$ ) in the upper

block, starting from the first scanning/sustain electrode line ( $Y_1$ ) of the upper block, to the last

scanning/sustain electrode line ( $Y_{m/2}$ ) of the upper block, and then progressively applying

scanning pulses ( $V_s$ ) to the plurality of scanning/sustain electrode lines ( $(Y_{m/2} + 1) - Y_m$ ) in the

lower block, starting from the first scanning/sustain electrode line ( $Y_{m/2} + 1$ ) of the lower block,

to the last scanning/sustain electrode line ( $Y_m$ ) of the lower block. Accordingly, the steps of the

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~~claims above are read in the Yoo reference.~~

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As per claims 21 and 32, as noting in figs. 7 and 8, Yoo discloses that when the input data having a logic value of "1" is supplied twice to X address electrode line to discharge cells ( $X_n$ ,  $Y_m$ ) and ( $X_n$ ,  $Y_{m+1}$ ), the result data pulse width is  $[2 (T_d + 2T_{ad}) - T_{ad}]$ .

As per claims 22 and 33, as noting in figs. 7 and 8, Yoo discloses that when the input data having a logic value of "0" is supplied twice to X address electrode line to discharge cells ( $X_n$ ,  $Y_{m+2}$ ) and ( $X_n$ ,  $Y_{m+3}$ ), the result data pulse width is  $(2 T_d + T_{ad})$ .

#### ***Response to Arguments***

10. Applicant's arguments, see page 8 of the amendment filed on 09/07/2005, with respect to the drawing objection and the rejection under 35 USC 112, first paragraph, in the Office Action dated 04/12/2005, have been fully considered and they are persuasive in light of the amendments to independent claims 1 and 24; however, the new drawing objection and the new rejection under 35 USC 112, first paragraph, are made as above.

11. Applicant's argument, see pages 9-10 of the amendment, with respect to the Yoo reference, has been fully considered but it is not persuasive because the invention defined in independent claims 1 and 24 and dependent claims 21, 22, 32 and 33 reads on another (second) embodiment of the Yoo reference, as discussed above.

12. Applicant's argument, see pages 9-10 of the amendment, with respect to the Kang and Suzuki et al. references, has been fully considered and it is persuasive. Examiner agrees with applicant that the Kang and Suzuki et al. references, either singularly or in combination, fail to



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anticipate or render the claimed feature, "widths of data pulses varying based on logic values of the input data", as presently claimed.

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### *Conclusion*

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is 571-272-7675. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

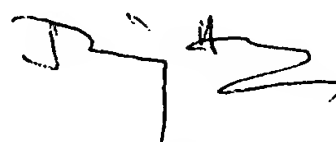
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JHN

October 21, 2005



Jimmy H. Nguyen  
Primary Examiner  
Art Unit: 2673